

**Subsurface Sewage Treatment Systems (SSTS)
Technical Advisory Panel (TAP) for Product Registration
Meeting Notes – February 17, 2022
Virtual via Microsoft Teams**

Meeting Attendees:

Committee Members	Present virtually on February 17, 2022	Guests	Present virtually on February 17, 2022
Tom Espersen	X	Douglas Nelson, Knight Treatment Sys.	X
Mitch Johnson	X	Mark Noga, Knight Treatment Systems	X
Pete Otterness	X	Judd Efinger, Prinsco	X
Alex Pepin	X	Trevor Sorensen, Prinsco	X
Ben Hoyt	X	Jeanne Allen, IWT	X
Sara Heger		Dick Bachelder, IWT	X
Jon Olson		Mike Sullivan, IWT	X
Bob Whitmyer	X		
Greg Halling			
Joe Enfield			
Chad Viland	X		
Tyler Lampella	X	MPCA Staff	
		Katie Dowling	X
		Cody Robinson	
		Aaron Jensen	X
		Steve Oscarson	X
		Brandon Montgomery	X
		Corey Hower	

9:00 am: Welcome; Review agenda

The meeting called to order at 9:09 am. There were no changes to the agenda.

9:05 am: December 16, 2021 TAP Meeting Notes – Review and approve

No changes

Motion to approve the minutes from the December 16, 2021 meeting. Passed unanimously.

9:13 am: New Product Registration (Knight Treatment Systems) – Doug Nelson

Katie let Mark and Doug into the meeting. Doug gave a brief overview presentation on the White Knight Product and provided a few examples of the use of the product. He went over some treatment results from the use of the product. He ended with the changes the MPCA requested from review of the application and the actions White Knight have taken to rectify those changes. A member asked if there was a limiting factor in the request. Doug said that the limiting factor is oxygen and there is a significant safety factor included. A member asked if there is data to show the removal of the matched pounds of cBOD₅ removal to make sure that this is adequate. Doug responded that the design spreadsheet accounts for the pounds removed, and data can be provided to support the pounds removed. Mark

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provided some additional information on the data from the presentation. A member asked about reseeding the unit if it requires it. Mark talked about how often they reseed the product and that it is dependent on the application. A member asked if First Supply would assist with installations. Mark said that First Supply would be the in-field trainer. There was discussion on detention time elements for these systems, and it was suggested this information be included in the manual. A member stated the design characteristics/guidelines should be better defined. A member commented that the picture of a top of the tank being cut would need to be removed as tank alternation is not allowed. A member asked if they could change some of the wording around seepage pits to clarify. A member pointed out that it is stated that this product cannot be installed in a cesspool. A question was asked about WI approval. They are approved on a site-by-site basis because they chose to do that. A member asked what the guidance is for the frequency that the bacterial packet needs to be replaced and that this should be clarified in the manual. For example, does it depend on HSW, or is it once a year or twice a year. Mark said that most of their commercial systems are 3 times a year, the service providers are educated in that, and the PEs have the capability to determine when things should be replaced. A member asked what was used to base the inoculation frequency. Mark said it is based on the health, odor, and visual inspection of the packet and what was going on down stream. The inoculant is a trade secret product that is designed specifically. A member asked if there was testing for fats, oils, and grease (FOG) and if there is a FOG limit for effluent. Mark said there is no limit. Doug talked about the restaurants and the requirements for grease traps. A member asked if there is a maximum residency in the tank. Example would be an existing system. Doug said that he could not think of a reason that would be a big deal, but at some point, the anoxic nature of the tank could create some odors. A member asked if there was any concern on condensate and freezing in the airline in cold temperatures. Mark talked about pitching the lines and that they have systems in Alaska with no issues of freezing. A member commented about the MAASTC testing and that there was some fouling in the product. Mark talked about the wastewater at that test site in which it goes through a grinder first, so they had more things entering the system. A member asked if they have recommendation on the effluent screen location and openings. Mark said all filters are ok to use, but they really like the filter on the pump. Mark said he is a big proponent of time dosing. They require time dosing and data acquisition on the panel for their installs.

Motion to go back and make those revisions and come back at a later date. Seconded. Passed unanimously

10:30 am: New Product Registration (Prinsco) – Judd Efinger

Katie let the Prinsco representatives into the meeting. Judd presented an overview of the product to the committee. Prinsco plans to introduce two other product models later this year. A member asked for confirmation that the product registration would be for a standard installation with no reduction. Judd confirmed that they are not requesting any reduction. A member referred to the recommendation to put landscape fabric over the chambers to prevent soil intrusion. Judd responded that they would make the change for two 45-degree clean outs. Judd clarified that a three-chamber configuration would have 3-inch separation between chambers and associated graphics would be updated. Needs to be clear what the expectations are for pressure beds. Comment about following MN rule for scarification. Another question referred to the back fill material or the material between the chambers. Judd said they have seen both loam and sand for that backfill. The diagrams show that in the mounds its sand in between the chambers, while the others use backfill material. Judd said that they would look through the rule requirements and align them with the product. More discussion on the backfill material was discussed. Discussion on the pressure distribution configuration. There was discussion about if fabric is required over the chambers. Judd said fabric is not a manufacturer requirement. Question on the bed system and the at grade system on the separation between them. Discussion about more clarity on sizing. Judd will make the adjustments to sizing discussed. Overall, it was recommended that the product is to align with current practices and MN rule.

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Motion to go back and make those revisions necessary and come back at a later date to finalize the registration for Prinsco Inc. Pro4/36 Chamber as a proprietary distribution media product.

Seconded. Passed unanimously

11:10 am: Registration Status (Aqua Test's The Nibbler) – Katie

Katie corrected name of manufacturer as it was incorrect in meeting packet. Aqua Test, Inc. is the manufacturer of The NIBBLER product. Aqua Test has not sent the required materials for renewal as of this meeting's date. There were comments about folks in the industry having demand to use this product in systems. Brandon talked about how long it took them to get registered in 2018 as well. Katie gave them multiple notices that they need to get it in. Katie said she could do one last attempt and we will remove them from the list at the next meeting. The TAP decided that Katie should send a letter to unregister the product.

Motion to unregister Aqua Test The Nibbler from product listing, since they have not submitted their renewal.

Seconded. Passed unanimously.

11:37 am: Adjournment

Motion to adjourn the meeting. Seconded. Passed unanimously. Meeting adjourned at 11:37 am.

Next TAP Meeting

Thursday, April 21, 2022 – MPCA St. Paul – Virtual MS Teams

**Subsurface Sewage Treatment Systems (SSTS)
Technical Advisory Panel (TAP) for Product Registration**

Meeting Notes – April 21, 2022

Virtual via Microsoft Teams

Meeting Attendees:

Committee Members	Present virtually on April 21, 2022	Guests	Present virtually on April 21, 2022
Tom Espersen		Doug Nelson, Knight Treatment Systems	X
Mitch Johnson	X	Mark Noga, Knight Treatment Systems	X
Pete Otterness	X	Jeanne Allen, IWT	X
Alex Pepin	X	Dick Bachelder, IWT	X
Ben Hoyt	X	Mike Sullivan, IWT	X
Sara Heger	X	Travis Johnson, IWT	X
Jon Olson	X		
Bob Whitmyer			
Greg Halling	X		
Tyler Lampella	X		
Chad Viland	X		
		MPCA Staff	
		Katie Dowling	X
		Cody Robinson	X
		Aaron Jensen	X
		Steve Oscarson	X
		Brandon Montgomery	X
		Corey Hower	X

9:00 am: Welcome; Review agenda

The meeting called to order at 9:05 am. Member requested an agenda item be added for an update on the high strength waste protocol.

9:06 am: HSW Protocol – Member topic

The protocol has been approved by TAP but is not posted publically yet. Some manufacturers are hoping to implement the policy prior to it being effective officially but are looking for the document still. Agency staff will work to finalize the document and get it posted on the MPCA website.

~~Cody will add a line indicating that design flow of each system needs to be included. Done for White Knight – Nibbler letter already published without – we'll have to work to update when able.~~

9:11 am: February 17, 2021 TAP Meeting Notes – Review and approve

No changes

Motion to approve the minutes from the February 17, 2021 meeting. Seconded. Passed unanimously.

April 21, 2022: Technical Advisory Panel
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9:12 am: Short Updates - Katie

Katie indicated that we currently have two openings on TAP due to retirements. The agency has advertised the openings at some committees and will be accepting applications until May 1st. A few folks have already applied and we will be looking to fill the two openings once the application period closes. If we receive more applications than openings we will need to determine who will be appointed.

9:17 am: Initial Product Registration (Infiltrator Quick 5 Gravelless Chambers [Quick 5 Standard and Quick 5 Equalizer 36]) – Jeanne Allen

There was an initial discussion on whether this is a new product or an addition of a model to the existing quick product line. This is something that will need to be considered as adding it as a new model may be more simple and more appropriate.

Infiltrator Water Technologies representatives joined the meeting at 9:30. Jeanne presented an overview of the product to the committee. Quick 5 Standard and Quick 5 Equalizer 36 are similar to the Quick 4 sister products. Requesting approval for 1:1 sizing with gravel distribution. Quick 4 and Quick 5 are interchangeable, they use the same endcaps and connection system.

IWT agreed that it would be acceptable to add the Quick 5 Standard and Quick 5 Equalizer 36 to the existing registration.

Questions and Comments during the meeting -

Page 19 of the manual – Laterals are tied together on the end of a seepage bed.

This is acceptable in gravity systems and is listed as optional (no change needed)

At-Grade Diagram – Only one pressure distribution lateral on the upslope edge

This is acceptable and allowed in rule (no change needed)

Page 15 of the manual – pressure bed designed with drop boxes (Should this be a distribution box or pressure?)

The drawing will be updated to show a distribution box instead of drop boxes. Jeanne will work to get

~~MPCA will add a note to registration letter that Quick 4 and Quick 5 may be interchanged.~~

Motion to register the Quick 5 Standard and Quick 5 Equalizer 36 as a new model in the Quick series of products pending revision of the manual. Seconded. Passed unanimously.

10:01 am: Product Registration, Cont. (Prinsco Pro4/36 Chambers) – Katie

Katie mentioned that Prinsco submitted an updated manual that was supposed to address modifications that were requested from the February meeting. Prinsco was not in attendance. Members identified that some of the requested changes appear to have been made but some appear to still need addressing.

Page 22 and 18 of the manual the At-grade and Mound diagrams need to have the “with topsoil removed” language removed from the manual.

Page 17 what material is used to backfill of at-grade? Other chambers specify sandy material used as backfill between chamber units. Prinsco needs to specify that in their manual.

Motion to register the Prinsco Pro4/36 Chambers with the required changes. Seconded. Passed unanimously.

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10:25 am: Aero-Stream Modifications - Scale-Up and Model Renaming – Katie

Katie mentioned that Aero-Stream has added 3 new models and renamed all models to be more consistent. The MPCA has received updated manuals and confirmed NSF 40 product listing. This is

Motion to register the three new scale up models and the name changes to the Aero-Stream product line. Seconded. Passed unanimously.

10:29 am: Product Renewal - The Nibbler – Katie

Katie indicated that the Nibbler submitted their renewal application and materials in at the end of March. The Nibbler was removed from the registered product list at the February meeting per TAP motion.

~~Cody will add a line to the registration letter and HSW protocol indicating that design flow of each system needs to be included.~~

Motion to renew registration of The Nibbler. Seconded. Passed unanimously.

Break from 10:40 to 10:50

10:50 am: Product Registration, Cont. (Knight Treatment Systems White Knight MIG™) – Doug Nelson

Cody and Katie met with Knight Treatment Systems prior to the meeting to help facilitate registration. The manual was requested to be scrubbed of references to remediation. Also they were asked to include BOD loading, design flows, and tank capacity. The manufacturer agreed to use 7080 tank sizing. The agency is looking for manual review from TAP still. Member question on how BOD loading rates were determined? Cody indicated that the BOD was set by the manufacturer and should be acceptable based on their product capability; however, if there is an issue the HSW protocol is intended to capture those concerns. Knight Treatment System's representatives joined the meeting at 11:03 am.

Knight Treatment gave a quick overview presentation of the product. References to residential and remediation have been adequately addressed to align with Minnesota rule and the application of the product.

~~Registration letter item 6 needs to be modified to state treatment tanks or aerobic tanks plus trash tank sizing meets septic tanks sizing in Minn. R. 7080.1930 in total.~~

~~Manual – existing table is going to be removed and replaced with the table from the registration manual~~

Motion to register White Knight MIG with the required manual and registration letter modifications. Seconded. Passed unanimously.

Discussion on when/how the next meeting should be conducted. The agency will poll attendees prior to the next meeting to determine the most appropriate meeting type.

Motion to adjourn the meeting. Seconded. Passed unanimously. Meeting adjourned at 12:13 pm.

Next TAP Meeting

Thursday, June 16, 2022 – Location - TBD

**Subsurface Sewage Treatment Systems (SSTS)
Technical Advisory Panel (TAP) for Product Registration**

Meeting Notes – December 15, 2022

Virtual via Microsoft Teams

Meeting Attendees:

Committee Members	Present on December 15, 2022	Guests	Present on December 15, 2022
Tom Espersen	X		
Mitch Johnson			
Pete Otterness	X		
Alex Pepin	X		
Ben Hoyt	X		
Sara Heger			
Jon Olson	X		
Bob Whitmyer	X		
Greg Halling			
Tyler Lampella	X		
Chad Viland	X		
Elizabeth Harbaugh	X	MPCA Staff	
Chris Priebe	X	Freya Linnett	X
Scott Robinson		Cody Robinson	X
		Aaron Jensen	X
		Steve Oscarson	X
		Brandon Montgomery	X
		Corey Hower	X

10:00 am: Welcome; Review agenda

The meeting called to order at 10:04 am.

10:05 am: April 21, 2022 TAP Meeting Notes – Review and approve

No changes

Motion to approve the minutes from the April 21, 2022 meeting. Seconded. Passed unanimously.

10:10 am: Short Updates - Cody

Salcor had a supply train issue this past year and the products and bulbs were no longer available. Currently, 9 products registered in MN utilize the Salcor 3g. Because NSF registrations were completed with the Salcor in the treatment train substitutions to the registrations could not be completed (due to no standalone UV products in MN. As such, the

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agency developed emergency guidelines (<https://www.pca.state.mn.us/sites/default/files/wq-wwists4-96.pdf>) indicating that type V was the allowable method for proceeding forward with products registered with Salcor.

NSF staffing has changed, Sharon Stiner has left and Derek Deland is the new contact. NSF 46 used to be the standard containing standalone disinfection devices however that disinfection protocol is being moved to NSF 385 (this change necessitates a rule update to the new standard). Could a standalone NSF disinfection product be used to alleviate a future issue such as the Salcor shortage?

TAP inquired if NSF 385 was the same as the old NSF 46 or if it was updated regarding parameters? The agency has not had time to review the new standard for comparison but will be working on that moving forward along with considering potential guidance on how emergencies like this will be managed.

Cody provided an overview of the currently active, "Drainage hole SSTS amendments" rule. This rule is in a preliminary request for comment stage. Essentially, this is only conceptual at this time and the MPCA is seeking input on the feasibility, people's opinions/experiences, any technical consideration for resealing, and precipitation management as they relate to drainage holes. The comment period is open until 4:30pm on December 22, 2022 and comments can be submitted at - <https://minnesotaoah.granicusideas.com/discussions/38748-minnesota-pollution-control-agency-request-for-comments/topics/submit-a-comment-244>

Motion made to Issue a statement that the Technical Advisory Panel is opposed to a rule change authorizing drainage hole amendments. Seconded. Discussion was had regarding the motion. Chair will be tasked with submitting the comment on behalf of the group. Passed unanimously.

11:00 am: Product Renewals – Cody/Freya

Cody discussed the renewal process and results from the surveys that were sent to the MPCA. Information received from all product manufacturers was then covered by Cody. Cody also shared information regarding the new High Strength Waste protocol and the applicability for the HSW products currently up for renewal.

Delta Environmental requested two additional EcoPod models to be included in their registration based on NSF scale-ups.

Motion to include the two new ECOPOD models into the current registration anticipated to be renewed based on the NSF scale-up letter. Seconded. Passed unanimously.

Discussion was had regarding which of the ECOPOP-D installations needs to follow the new HSW protocol. There were 9 installations in the previous registration cycle that the group considered.

Motion to require three (Swan River Tavern, Ham Lake Daycare, New Ulm MVL School) of the previous 2020-2022 ECOPOD-D installations to follow the new HSW protocol upon renewal. Seconded. Passed unanimously.

There were three products who failed to submit appropriate materials and documentation in order to be discussed at this meeting. All three products wish to be renewed and will be submitting information for renewal to be considered at the February TAP meeting.

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Motion to renew BioBarrier MBR, BioBarrier HSMBR (HSW), HighStrengthFAST (HSW), EDOPOD series, ECOPOD-D series, Ecoflo Coco Filter, Waterloo Biofilter, Eljen GSF(including the addition of HSW protocol for appropriate products). Seconded. Passed unanimously.

12:00 pm: Combined Treatment and Dispersal Products - Cody

Cody explained the process of combined treatment and dispersal and that these types of products are being proposed to be brought to Minnesota. This will likely require a rule change to facilitate. These products would likely still require operating permits.

There was a discussion on how sampling occurs on CTD products and why the difficulties raised pose a problem with allowing those products. Comments were made pertaining to similarities between bottom draining products currently registered and some of the newer CTD products being proposed.

A question was asked regarding what sand alone, without a CTD product, would produce as far as effluent quality. How would this type of product being introduced to the market impact the overall program? If CTD is introduced does that degrade the requirements for intermediate and advanced professionals in the state?

Could basics be taught to design and inspect these products? Does that fall into intermediate certification? Concerns were also raised regarding expansion of basic work scope and how you ensure those certified have received the updated information.

The next TAP meeting (February) will hopefully be Hybrid (In-person/Hybrid).

Motion to adjourn the meeting. Seconded. Passed unanimously. Meeting adjourned at 12:44 pm.

Next TAP Meeting

Thursday, February 16, 2023 – St. Paul office LL South/Virtual